AUTHOR'S INDEX

A
Abdel Rahman, Y., 268
Adachi, M., 275
Agnoli, F. S., 367
Albrecht, G., 51
Alm, B., 142, 287
Anderson, B. G., 35

B
Bänder, A., 81
Baier, H., 344
Balasse, E. O., 371
Bellone, C. F., 318
Ben-Ami, P., 135
Benson, B., 45
Ber, A., 38
Beringer, A., 81
Berk, J. L., 277
Bersohn, I., 86
Bettendorf, G., 49
Beyer, W. H., 277
Bielmann, P., 330
Binswanger, U., 110
Bleicher, J. B., 13
Bluguermann, J., 271
Bode, C., 282
Bode, Chr. 282
Boquist, L., 166
Bringolf, M., 189

C
Caldwell, A. B., 3
Calugareanu, M. L., 94
Carrera Vescio, L., 157
Cattaneo de Peralta Ramos, M., 76
Cerasi, E., 246, 303
Chieri, R. A., 76
Chowdhury, F. R., 13
Chrétien, M., 330, 352
Christiansen, A. H., 187
Cohen, M. P., 271
Corredor, D. G., 102
Costello, L. C., 242
Cromwell, T. H., 309
Csorba, T. R., 305

D
Danielsson, A., 28
Danowski, T. S., 102
Ditschuneit, H. H., 307
Doria, I., 318

E
Edgerton, V. R., 364
Efendić, S., 142, 287
Eger, E. I., 309
Enk, B., 131
Ensinck, J. W., 153
Evertz, W., 213, 333

F
Fain, J. N., 3
Faulhaber, J.-D., 307, 333
Fehm, H. L., 333
Felber, J. P., 72, 189, 323
Fischer, J. A., 110
Fischer, U., 251
Florin Christensen, A. F., 157
Foà, P. P., 64
Foglia, V. G., 76, 157, 271
Forsham, P. H., 309
Forster, K., 307
Franckson, J. R. M., 21
Franklin, R., 242
Freinkel, N., 367
Fußgänger, R., 268

G
Gagliardino, J. J., 310
Gattereau, A., 330
Gattner, H.-G., 305
Gerber, C., 265
Geyer, H., 172
Gillespie, C. A., 364
Gillich, K. H., 106
Glaninger, J., 81
Gobbert, M., 225
Goberna, R., 204
Godbersen, H., 282
Goebell, H., 282
Goldfine, I. D., 47
Gomez, F., 72
Grässlin, D., 49
Greenberg, M. M., 349
Greub, H., 265
Gries, F. A., 185
Gunnarsson, R., 313
Gutman, R., 43
Gwinup, G., 35

H
Hackeng, W. H. L., 311
Hagen, J. F., 277
Hahn, H. J., 119
Hajjar, R., 35
Hallberg, D., 303
Heding, L. G., 53
Hellerström, C., 313
Hellman, B., 28
Herberg, L., 185
Herrmann, M., 204
Hertelendy, F., 257
Hilgard, P., 255
Hill, J. M., 275
Hindberg, I., 131
Hinz, A., 174
Hinz, M., 123, 268
Hochman, I. H., 260
Hommel, H., 251
Hüther, K. J., 357

I, J
Idahl, L. A., 28
Jeffcoate, S. L., 193
Jørgensen, K. H., 53

K
Kaiser, R., 191
Katsilambros, N., 123, 268
Kazdová, L., 117
Keller, J., 147
Keller, P. J., 265
Khan, A., 275
Kipnis, D. M., 257
Kirsteins, L., 86
Knospe, S., 251
Koch, B., 292
Koschinsky, T., 185
Krüskemper, H. L., 106

L
Lambilliotte, J. P., 371
Laron, Z., 121, 260
Lauritzen, Ch., 191
Lawrence, A. M., 86
Lazarus, N., 43
Lefebvre, P. J., 64
Lemarchand-Béraud, T., 338
Lischka, M., 253, 369
Löw, H., 142, 287
Lowry, L., 161
Luft, R., 246, 303
Luise, M. de, 238
Lutz, B., 292
Luyckx, A. S., 64

M
Machlin, L. J., 257
MacManus, J. P., 233
Mahler, R. J., 9, 125
Malaisse, W. J., 21
Mandelbaum, I. M., 21
Markussen, J., 17, 53
Martin, H. E., 228

Martin, T. J., 238
Marx, M., 204
Mayrhofer, E., 81
Méan, P., 338
Melick, R. A., 238
Mendelsohn, L. V., 102
Menzel, P., 225
Merz, W., 110
Metzger, B. E., 367
Mialhe, C., 292
Michael, R., 119, 251
Miller, C. W., 45
Minne, H., 255
Moody, A. J., 193

N
Nagel, S., 344
Nakasone, K., 6

O
Oertel, G. W., 225
Ooms, H. A., 371

P
Pallotta, M. G., 157
Pasternak, K., 6
Penhos, J. C., 43
Pereyra, V., 318
Persson, I., 131
Petersson, B., 313
Pfeiffer, E. F., 123, 213, 268, 333
Pinto, J. E. B., 157

R
Raman, A., 181
Recant, L., 43
Reichard, G. A. Jr., 68
Reimold, W. V., 56
Renauld, A., 157
Retiene, K., 221
Rixon, R. H., 233
Rosenberg, T., 121
Rubenstein, A. H., 86
Rudorff, K.-H., 51
Ryan, W. G., 47

S
Sabeh, G., 102
Sallis, J. D., 238
Salzer, G. M., 253, 369
Sánchez, J. J., 318
Sattler, F., 35
Schellekens, A. P. M., 311
Schenk, R. K., 110
Schleyer, M., 174, 333
Schmahl, F. W., 147
Schmidt, W., 204
Schmitt, G., 292
Schmitt, W., 255
Schnack, H., 81
Scholz, H. R., 357
Schopman, W., 311
Schreiner, W. E., 265
Schröder, K. E., 174, 268
Schulz, F., 221
Serebrin, R., 228
Sjöberg, H. E., 32
Smith, G., 352
Sodoyez, J. C., 64
Söling, H. D., 56, 135
Spitz, I., 86
Staib, W., 51
Steinmetz, J., 161, 200
Stevens, W. C., 309
Stolecke, H., 298
Stoll, R. W., 153
Stracey, R., 242
Straub, K., 268
Strohmeyer, G., 282
Sundby, F., 17
Sverdlik, R. C., 157
Szabo, O., 9, 125

T
Takahashi, K., 257
Talke, H., 147
Tanese, T., 43
Taubert, H.-D., 344
Touber, J. L., 153

V
Voigt, K. H., 333
Volund, Aa, 193
Voyles, N., 43
Vrána, A., 117

W
Wacholtz, M. C., 349
Wajchenberg, B. L., 6
Werder, K. v., 309
Whitfield, J. F., 233
Williams, R. H., 153
Willms, B., 56, 135
Wolff, G. L., 68, 161, 200

Y
Yen, T. T. T., 161, 200, 349
Yaoi, Y., 49

Z
Zahlten, R., 56
Zaragoza, N., 189, 323
Ziegler, M., 251
Ziegler, R., 255

SUBJECT INDEX

A
Acetate, lipogenesis 61
- 1-C^{14}, incorporation to cholesterol by uteri of castrated diabetic rats 77
Acetoacetate, uptake by epididymal fat pads 57
ACTH activity, biological 215
- - in vivo, determination 334
- content of tumours, metastases and urine 213
- effect on plasma corticosterone in hypophysectomized rats 354
- in hypothalamic extracts of rats 222
- in pituitary anterior lobes of rats 222
- in vivo bioassay 352
-, potency of different preparations 355
- radioimmunoassay 216
- syndrome, ectopic 213
- stimulation test in females with ovarian enlargement 103
Acinar cell with zymogen granules 205
- islet cells in regenerating rat pancreas 204
Adenosine 3', 5' monophosphate (AMP), cyclic, sensitization to PTH mitogenic action 233
Adipose tissue of mice, genetic influences of glucose metabolism 161
- -, proliferation 117
Adrenal gland, effect on electrolyte excretion 230
- morphology and function, involvement in diabetes mellitus 357
Adrenalectomy in rat 181
Adrenergic blocking agents 318
- regulation of basal serum glucose, NEFA and insulin levels 318
Agouti locus 68, 162, 200
Alanine gluconeogenesis 52
Aldosterone, effect on Na transport 230
Alpha adrenergic blockade, effect of epinephrine on GH and insulin responses to arginine during 259
- cell, pancreatic, selective destruction by $CoCl_2$ 97
- 1 cell 314
- 2 cells, nuclear area 314
- glycerophosphate cycle, stimulation on metabolic changes in liver 282
- turnover, influence of hyperthyroidism 285
- ketoglutarate, levels in stimulated pancreatic β-cells 28
Antidiabetic therapy, oral failure 83
Antidiuretic hormone, potentiation by, of the ability of PTH to stimulate thymocytes 233
Anti-insulin serum, effects on disposal of oral glucose 193
Atropine, hyperglycemic effect 277
Autografts, ovarian, development 38

B
Beta adrenergic blockade, effect of epinephrine on GH and insulin responses to arginine during 258
- cell 314
- -, degranulation after $CoCl_2$ injection 98
- - with endocrine granules 205
- -, intracellular digestion of secretory granules 166
- - of Mongolian gerbils, Chinese hamsters, spiny mice, obese-hyperglycemic mice 166
- lipotropin, sheep 330
Blood glucose level in diabetic rats after arginine 268
- - after injection of secretin 132
- - responses to oral glucose after dialysis 88
Bodies, dense 171
Body weight and urinary steroids 102
Bone formation 112
-, histological observations on intestinal malabsorption 110
- remodelling 113
- resorption 113
2-Bromostearate 189, 190
Butylbiguanide, metabolic effect during glucose infusion 72

C
Calcitonin, human, radioimmunoassay 311
-, responses of serum and urine sulphate levels 240
Calcium ions, effect on lipolsis in human omental adipose tissue 288
- level, plasma, influence of hypophysectomy in EDTA-induced hypocalcemia in rat 253
- plasma, effect of adrenalectomy 181
-, -, influence of hypophysectomy 369
- in plasma and urine 32
- 47 retention 33
- serum, in rats influenced by calcitonin 239
- 47 uptake, effect of lipolytic and antilipolytic agents 143
Carbohydrate diet 326, 327
- tolerance, abnormal during thiazide administration 13
Carcinoma colli in pregnant woman, hormone assay 191
Castration, effects on glucose oxidation in mice 163
Chlorothiazide 13
Chondroitin sulphate, uptake of ^{35}S 272
Chromatography, thin-layer, of free urinary cortisol 298
Circadian rhythm of endocrine pituitary function 221
Citrate, kidney, liver, plasma 242
Citrate levels, soft-tissue, PTH effects 242
Clomiphene, cis- and trans-, actions on the release of FSH and FSH-RF 344
Coagulation, intravascular, connected with hypercalcemia-calcinosis syndrome 256
Cobalt chloride ($CoCl_2$), effect on endocrine pancreas in the snake 94
-, cytotropic, action upon A2-cells 96
Corticosteroid binding protein 352
Corticosterone, degradation by liver and diaphragm 294
- disappearance 292, 294
-, extraction and recovery from plasma 353
-, plasma concentrations, plasma clearance and production 357
-, tissue uptake 292
Corticotropic activity of lipolytic hog pituitary gland fractions 333
Corticotropin-releasing hormone (CRH), hypothalamic, circadian rhythmicity 221
Cortisol, plasma concentrations, plasma clearance and production 357
C-peptide, animo acid composition 18
-, bovine 17
-, -, ^{125}I-tyrosyl, preparation 53
-, porcine 17
-, preparative method for isolation 17
-, tyrosyl-, amino acid analysis 54
Cushing syndrome following ectopic production of corticotropin 213
Cycloheximide 4

D
Dehydroepiandrosterone, inhibition of human placental G6PD 225
D-3-hydroxybutyrate, uptake by epididymal fat pads 57
Dexamethasone 4
-, plasma cortisol after 107
- tests in patients with ovarian enlargement 104
Diabetes mellitus, disorder of cellular information transmission 246
- pathogenesis 246
-, severe 7
-, streptozotocin in animals 268
-, -, enzyme pattern 137
Diabetic, adrenal overactivity 362
-, obese 7
- rat liver, ^{35}S uptake into chondroitin 272
-, untreated, enzyme activities in liver 136
Diabetogenic effect of L-asparaginase 275
Dogs, hypophysectomized, IRI concentration 158

E
Electrode, calcium-sensitive 182
Epinephrine, effect on GH and insulin responses to arginine 258
Ethanol oxidation, influence of L-triiodothyronine 286
Ether anesthesia, hypothalamic CRH and pituitary ACTH in rats after 223
Ethyleneglycol-bis (β-amino-ethylether) N,N′-tetraacetic acid (EGTA) on lipolysis 288
Excretion, electrolyte in rat, effect of adrenal and parathyroid 228

F
Fat cells, isolated of BHob mice, glycerol kinase activity 185, 186
– –, white, activation of lipolysis 3
– diet, high, metabolic effects in rats 323
Fettstoffwechselhormone 333
Follicle stimulating hormone (FSH), inhibition of G3PDG 350
– – –, release 344
– – – release-factor (FSH-RF), release 344
Free fatty acid (FFA), effect of nicotinamide on plasma content of 151
– – – level, suppressed by tolbutamide 11
– – –, plasma, during glucose infusion, after butylbiguanide 74
– – –, –, responses to oral glucose after dialysis 88
– – –, responses to insulin 10
– – –, – to tolbutamide 10

G
Gamma-guanidinobutyramide (HL 523) 21
–, effects upon glucose uptake by muscle 22
–, – upon glycogen-^{14}C deposition in muscle 24, 25
–, – upon glycogenolysis in muscle 24
–, – upon insulin secretion in vitro 25
–, – upon production of total lactic acid 23
Gene, yellow, lethal 200
–, –, viable 200
Genotypes, different of mice, glucose oxidation 162
Gland, adrenal 230
–, parathyroid 230
–, pituitary, fractions, isolation and separation 333
–, supraorbital 35
Glucagen, coupling 47
Glucagon antibodies, rapid production 47
– immunologically measurable (IMG) in diabetic rats after arginine 268
Gluconeogenesis, effect of sex and pregnancy on urea and ammonia during 367
–, hepatic enzyme activities in diabetes 135
Glucose concentration in plasma of dogs receiving atropin 278
– – – – propranolol 278
– insulin relationship 318
–, mode of action on insulin release 247
– oxidation in diaphragm of fat-fed rats, reversal by 2-bromostearate 189
Glucose-6-phosphate dehydrogenase (G6PD) activity, effects of dehydroepiandrosterone 225
Glucose receptor 247
– responses to insulin 10
– – to tolbutamide 10
–, serum, in AIS rats 197
– tolerance 14
– – curve 6
– –, improvement 8
– – oral, after normalization of serum calcium concentration 121
– – test in dogs, blood sugar and IRI 158
– – –, oral, after renal transplantation 90
– – –, –, in relation to dialysis 87
– U-^{14}C, incorporation into diaphragm glycogen 45
– uptake induced by HL523 23
Glutamate levels in stimulated pancreatic β-cells 28
Glycemia after $CoCl_2$ injection 95
Glyceraldehyde-3-phosphate dehydrogenase, inhibition, effect of EDTA and substrates 351
–, – by FSH 349
Glycerol, release by epididymal adipose tissue from hamsters 65
Glycogen, effect of Nam in rat liver 149
– supercompensation, exercise-induced, testosterone in 364
Glycolysis, hepatic enzyme activities in diabetes 135
Gonadotropin, crude 49
Granules, secretory in β-cells of obese hyperglycemic mouse 167
–, zymogen-like 210
Growth hormone, human, isolation 174
– –, –, preparations 174
– –, lipolytic activity 175
– –, – action blocked by cycloheximide and dactinomycin 3
– –, radioimmunological activity 175
– – release, stimulation by hypocalcemia 121
– – responses to oral glucose after dialysis 88
– – secretion during long-term anesthesia in man 309
– – –, pituitary, effect of methandrostenolone 260
– – – in sheep 257

H
Hamsters, insuloma-bearing 67
Hemicastration 39
Human placental lactogen (HPL) 265, 266, 267
Hypercalcemia due to Walker carcinosarcoma 255
Hyperparathyroidism, normocalcemic form 115
–, primary, retention of ^{47}Ca 32
Hyperthyroidism, induction of GPox in liver 283
Hypocalcemia, EDTA-induced 253
– stimulating influence upon growth hormone 121
Hypoglycemic action of ketones 372
Hypokalemia, chlorthalidone-induced 13
Hypophysectomy, influence on counter-regulation to hypercalcemic stress 369
Hypothyroidism in pregnant women 33

I
Immunoglobulin, insulin-binding in insulin-treated diabetics 187
–, –, determination 188
Index, insulinogenic 14
Insulin and adipose tissue cellularity 117
– in brachial and portal veins 303
–, cross-linking, induced by iodination 305
– in dog with spontaneous diabetes 251
– effect on calcium uptake 144
– – on metabolism of alanine 51
– glucose ratio 158
–, immunologically measurable (IMI) in diabetic rats after arginine 268
–, immunoreactive (IRI), antibody-bound, changes after oral glucose 195
–, –, equivalents after glucagon 155
–, –, – after glucose 154
–, –, – after tolbutamide 154
–, – in hypophysectomized dogs 158
–, –, level in fat-fed rats 326
–, –, responses to tolbutamide 10
– inhibitory capacity of plasma 45
–, plasma, concentration during hypokalemia 14
–, –, responses to oral glucose and tolbutamide 7
– release 246
– –, inhibition 121
– –, – by endogeneous insulin 119
– –, peak 7
– – in sheep, adrenergic blockade and inhibition by epinephrine 25
– releasing unit 247
– response, delayed, to glucose infusion 303
– – following i.v. tolbutamide 126
– radioimmunoassay effects of epinephrine, amino acids and albumin 125
– secretion, influence of ketone bodies
– serum immunoreactive (IRI) in AIS rats 196
– – – during glucose infusion after butylbiguanide 73
–, –, influence of strain genomes 70
–, –, responses to oral glucose after dialysis 88
– stimulation by secretin in diabetics 131
– values, spuriously high or low 129
Iodo-insulin, cross-linking 305
Ion-exchange chromatography 17
Ischemia, effects on the glutamate level in β-cells 30
Islet cell tumour, transplantable in golden hamsters 64
–, endogenous oxygen uptake 314
–, isolated, endogenous respiratory rate 314

Islet cell metabolism 119
–, pancreatic, structure and metabolism in streptozotocin-treated guinea pigs 313

K
Ketone bodies, effect on insulin secretion 371
– body level in liver, elevation after ethanol 284
– – utilization by adipose tissue 56

L
L-asparaginase, potentiation of diabetogenic effect by prednisolone 275
Lactate dehydrogenase (LDH) isoenzymes in atrophic uterus 172
Lactogen, human, placental, metabolism 265
Lipid accumulation, ethanol-induced in the liver 282
Lipogenesis 330
Lipolysis 330
–, activation due to growth hormone in white fat cells 3
– in adipose tissue, effect of TH162 307, 308
–, effects of Ca^{++} in human omental adipose tissue 287
– in genetically obese mice 200
– in golden hamsters with hypoglycemia and hyperinsulinemia 64
– in human omental adipose tissue, effects of NA, ISPNA, Th, d-cAMP 288
– inhibition 81, 84
Lipolytic action of theophylline, DCAMP, arterenol, failure of cycloheximide to inhibit 4
– agents, effects on calcium uptake in rats 143
– hormone 333
– –, potent, lipogenic activity 330
– response ratio 201
Liver in AIS rats 198
–, rat, perfusion with L-alanine 367
Luteinizing hormone (LH), method for isolation 49

M
Malabsorption syndrome, skeletal alteration 110
Methandrostenolone administration, accelerated high increment subsequent to 262
–, growth hormone response at the end of treatment 263
16-methylene-6-dehydrocortisol (StC 407), dose-response comparison between dexamethasone and 106
–, plasma cortisol after 107
–, short-term suppression test 106
5-methylpryrazole-3-carbonic acid (DMID), effect on fatty acids, blood sugar and triglycerides 82
5-methylpryrazole-3-carbonic oral diabetes therapy 81
Mice, Bar Harbor, glucose tolerance 139
–, New Zealand obese, hyperinsulinemia 139
–, spiny, glucose tolerance 138
Mouse, genotypes 68

N
Natrium concentration in gull's plasma 36
Nicotinamide adenine dinucleotide synthesis, increased from Nam application 150
–, effect on carbohydrate metabolism in rat liver 147

O
Oatcell carcinoma of the lungs, metastasizing 213
Osmoreceptor of gull, mechanism 36
Ovarian autografts 38
– enlargement and urinary steroids 102
– function, cessation 172
– implants, dormant 38
– –, growth capabilities 41
Ovary, polycystic 102

P
Parathyroid extract, effect on citrate levels 243
– gland, effect on electrolyte excretion 230
– hormone, paraneoplastic secretion 255
– – proliferation 233
Parathyroidectomy, effect on tissue distribution of ^{35}S-sulphate in rat 239
Peptide, TSH-like 341
Phentolamine treatment, blood glucose, NEFA, IRI levels before and during 318
Phenylisopropyladenosine (TH 162), effect on lipolysis 307, 308
Phosphodiesterase 247
Placenta, human, homogenates 225
Potassium depletion 31
Prediabetics, delayed insulin response 303
Predisolone, potentiation of diabetogenic effect of L-asparaginase 275
Pregnancy in diabetic female rat 76
–, effect on urea and ammonia during gluconeogenesis 367
–, PBI, free and T4 thyroxin and TSH during 338
Proinsulin, bovine, antibodies 53
–, conversion to insulin 43
–, determination of insulin and, after elution from polyacrylamide electrophoresis 123
–, effect on the metabolism of alanine 51
– equivalents after glucagon 155
– – after glucose 154
–, porcine, hypoglycemic action in hepatectomized rats 43
Proinsulin,
–, substances immunologically related to 153
Propranolol administration, blood glucose, NEFA, IRI levels before and during 318
–, hypoglycemic effect 277
Prostaglandin E_1, effect on theophylline stimulated calcium uptake and lipolysis 145

R
Rats, alloxandiabetic, isolated perfused livers 51
– fed with high fat carbohydrate-free diet 189
–, hepatic enzyme activities deprived of insulin 137
–, pancreatectomized diabetic, fertility rate 77
–, –, uterine and ovarian pathology 78
Rhythm center 223

S
Salt gland, nasal, secretion 35
Sacroma 37
–, ascites cells 69
Secretin injection, blood sugar and insulin responses after 132
Smears, vaginal, after bilateral castration 39
Steroids, urinary in pregnant woman with carcinoma colli 191
Streptozotocin 313
–, action on insulin and glucagon responses of rat islets 268
Sulfonylureas, contents of α-ketoglutarate and glutamate in islets 29
Sulphate homeostasis, relationship of parathyroids and calcitonin in maintaining 238
–, radioactive, effect of diabetes on the uptake, into chondroitin sulphate 271
Sulphation factor 273
Survival, fetal, in pancreatectomized female rats 79

T
Testosterone, growth promoting effect 264
–, role in glycogen super-compensation 364
Thymocyte populations in rat, stimulation by PTH and ADH of the cell flow into mitosis 234
Thyroid function, pituitary regulation in pregnancy 338
Thyroparathyroidectomy in the rat 253
Tolbutamide, effect of short-term treatment on insulin dynamics in diabetics 6
– mechanism of action 9
– therapy 7
– tolerance 14
– – tests in relation to hemodialysis 91

Transcortin, influence on degradation and tissue uptake of corticosterone 292
–, plasma, binding-capacity 293, 294
–, plasma, binding-capacity 293, 294
Triglyceride accumulation, alcohol-induced in liver 285
Triglyceride accumulation,
–, effect of glucose on incorporation of ^{14}C-activity from acetoacetate into 60
–, – of Nam in rat liver 150
Tumor growth, response of serum insulin 68

U
Urinary cortisol, free, determination 298
– –, –, normal values in infants 301

V
Vitamin D deficiency, nutritional 110

W
Whole body counter 33